

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 15-26 are pending in the present application. Claims 1-14 have been cancelled without prejudice or disclaimer, and Claims 15-26 have been added by the present amendment.

In the outstanding Office Action, Claims 1-14 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 5,495,479 to Galaand in view of U.S. Patent 5,987,521 to Arrowood.

With respect to Claims 1-14, the rejection is obviated by their cancellation. With respect to new Claims 15-26, which have been added to clarify features of the claimed invention, Claims 15-26 are believed to distinguish over the teachings of Galaand and Arrowood.

Independent Claim 15 is directed to a method of remotely distributing information packet routes to routers of a network. The method includes suggesting an explicit route determined by an explicit routing algorithm not distributed to routers of the network, the explicit route suggested for replacing a first route determined by a routing algorithm of one of the routers; checking that the explicit route is substantially free of potential loops, errors, and excessive traffic; and distributing the explicit route to one of the routers. Independent Claim 21 recites similar features.

In a non-limiting example, Applicants' Figure 1 illustrates a configuration in which explicit routing algorithms (ERA) and an External Routing Manager agent part (ERMap) may be localized in a router or computer connected to the network for which the explicit route will be used (page 4, lines 21-25). The explicit route is suggested by the ERA (page 5, lines 26-27) to the ERMap via an interaction RP1 (Fig. 1). The ERMap checks whether the explicit

route is free of loops (page 4, lines 27-28) and then distributes the explicit route to a network router via an interaction RP2 with an External Routing Manager routing part (ERMrp) (page 4, lines 35-36).

As stated in the outstanding Office Action, Galaand does not disclose an external route manager used to effect a plurality of undistributed routing algorithms (page 2, para. 2), *i.e.*, used to distribute a plurality of routes to a network routers. Because Claim 15 is directed to a method of remotely distributing routes to network routers, Applicants respectfully submit Claim 15 is distinguished over Galaand. The Arrowood reference is addressed in greater detail below.

Arrowood teaches a path management system that centrally manages connection routing (col. 2, lines 4-6) to permit changes to pre-calculated information packet routes (col. 4, lines 54-64). More particularly, Arrowood teaches a central management of connection routing in systems that have a *limited* protocol control *command structure* (col. 2, lines 1-6). Thus, in sum, Arrowood addresses the deficiencies of a limited command scheme.

Like Arrowood, the present application also teaches a method of commanding routers to affect a determined route. However, unlike Arrowood, the claims as currently written set forth a method and apparatus for determining loop-free routes, without the use of distributed routing algorithms (page 6, lines 5-8). The claimed invention achieves this aim by using an external system (e.g., ERA and ERMap) that determines new routes (e.g., explicit routes) and *checks the new routes before they are distributed* to network routers. Arrowood does not teach or suggest checking new routes before they are distributed, as is clear from the following explanation of its method for initiating routes.

In Arrowood, a Manager node creates and deletes path routes by setting read-write data values called path objects (col. 2, lines 6-12). Local Agent nodes generate new routes upon detecting the new path object values (col. 2, lines 12-15). As shown in Figure 5, the

Manager node merely sends a "set_path" command 51 to an Agent node. The Agent node then performs a variety of determinations 52-62, including a determination of whether the new path is "possible" 58. Based on those determinations 52-62, the Agent node informs the Manager node of whether it has rejected 63 or accepted 64 the set command.

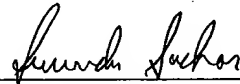
Thus, Arrowood does not disclose a Manager node that checks a new route for loops, errors, or traffic before distributing the new route to an Agent node of the network. Further, Arrowood suggests that only the Agent nodes check the validity of new routes. The claimed invention, on the other hand, manages loops without the use of distributed router algorithms (page 6, lines 5-8) by checking the suggested routes for potential loops before the routes are distributed (pages 4, lines 21-34; Figure 1). Accordingly, Applicants respectfully submit that Arrowood cannot overcome the deficiencies of Galaand with respect to independent Claims 15 and 21, and the remaining claims depending therefrom.

New Claims 21-26 set forth the subject matter of Claims 15-20 in a varying scope, and Applicants submit that the new claims are supported by the originally-filed application. In particular, Claims 21-26 are similar to Claims 15-20, respectively, but have been drafted to use computer code product terminology. It is respectfully submitted new Claims 21-26 are allowable for similar reasons as amended Claims 15-20.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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